

# EXHIBIT L

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Third Edition

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**hardware monitor**

secure a computer system from unauthorized access, such as the lock on the front of the cabinet of some personal computers.

**hardware monitor** \hārd'wār mon'ə-tər\ *n.* A separate board-level circuit used to oversee the performance of a hardware software system. A hardware monitor can detect the cause of a fatal error such as a system crash, whereas a software monitor or debugger cannot. *Compare* debugger.

**hardware profile** \hārd'wār prō'fīl\ *n.* A set of data that describes the configuration and characteristics of a given piece of computer equipment. Such data is typically used to configure computers for use with peripheral devices.

**hardware tree** \hārd'wār trē\ *n.* In Windows 95, a data structure containing information about the configuration and requirements of a system's hardware devices. Consisting of nodes that point to active devices, the hardware tree is dynamic and is reconstructed every time Windows 95 is started or refreshed. The hardware tree facilitates the Plug and Play capability of Windows 95.

**hardwired** \hārd'wīrd\ *adj.* **1.** Built into a system using hardware such as logic circuits, rather than accomplished through programming. **2.** Physically connected to a system or a network, as by means of a network connector board and cable.

**Harvard architecture** \hār'vərd 'ār kə-tek-chūr\ *n.* A processor architecture that uses separate address buses for code and for data. This increases throughput by allowing the system to fetch instructions at the same time that it reads and writes data. This architecture also allows optimization of memory system design because instructions tend to be fetched sequentially, whereas data reads and writes are more random.

**Harvard Mark I** \hār'vərd mār'k' wən\ *n.* See Mark I.

**hash<sup>1</sup>** \həsh\ *n.* In many FTP client programs, a command that instructs the FTP client to display a pound sign (#) each time it sends or receives a block of data. *See also* FTP client.

**hash<sup>2</sup>** \həsh\ *vb.* To be mapped to a numerical value by a transformation known as a hashing function. Hashing is used to convert an identifier or key, meaningful to a user, into a value for the location of the corresponding data in a structure, such as a table. For example, given the key

**head**

MOUSE and a hashing function that added up the ASCII values of the characters, divided the total by 127, and took the remainder, MOUSE would hash to 12, and the data identified by MOUSE would be found among the items in entry 12 in the table.

**hash coding** \həsh' kō'dēng\ *n.* *See* hash<sup>2</sup>.

**hash search** \həsh' sərçh\ *n.* A search algorithm that uses hashing to find an element of a list. Hash searches are highly efficient because the hashing enables direct or almost direct access to the target element. *See also* binary search, hash<sup>2</sup>, linear search, search algorithm.

**hash total** \həsh' tō'təl\ *n.* An error-checking value derived from the addition of a set of numbers taken from data (not necessarily numeric data) that is to be processed or manipulated in some way. After processing, the hash total is recalculated and compared with the original total. If the two do not match, the original data has been changed in some way.

**Hayes-compatible** \hāz kəm-pat' ə-bl\ *adj.* Responding to the same set of commands as the modems manufactured by Hayes Microcomputer Products. This command set has become the de facto standard for microcomputer modems.

**HDBMS** \H'D-B'M-S\ *n.* *See* hierarchical database management system.

**HDF** \H'D-F\ *n.* *See* Hierarchical Data Format.

**HDLC** \H'D-L-C\ *n.* Acronym for **H**igh-level **D**ata **L**ink **C**ontrol. A protocol for information transfer adopted by the ISO. HDLC is a bit-oriented, synchronous protocol that applies to the data-link (message-packaging) layer (layer 2 of the ISO/OSI model) for computer-microcomputer communications. Messages are transmitted in units called frames, which can contain differing amounts of data but which must be organized in a particular way. *See also* frame (definition 1), ISO/OSI model.

**HDSL** \H'D-S-L\ *n.* *See* High-data-rate Digital Subscriber Line.

**HDTV** \H'D-T-V\ *n.* Acronym for **h**igh-**d**efinition television. A method of transmitting and receiving television signals that produces a picture with much greater resolution and clarity than does standard television technology.

**head** \hed\ *n.* The read/write mechanism in a disk or tape drive. It converts changes in the magnetic field of the material on the disk or tape surface to